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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/652,376	08/31/2000	Arun Kumar Sinha	U 012930	4436
140	7590	08/25/2006	EXAMINER	
LADAS & PARRY 26 WEST 61ST STREET NEW YORK, NY 10023			KEYS, ROSALYND ANN	
			ART UNIT	PAPER NUMBER
			1621	

DATE MAILED: 08/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	09/652,376		SINHA, ARUN KUMAR	
	<b>Examiner</b>		<b>Art Unit</b>	
	Rosalynd Keys		1621	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Status of Claims*

1. Claims 1, 2 and 4-7 are pending.  
Claims 1, 2 and 4-7 are rejected.  
Claims 3 and 8-12 are cancelled.

### ***Claim Rejections - 35 USC § 112***

2. Claims 1, 2 and 4-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are indefinite because they refer to a formula I. However, the claims do not contain a structural formula.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 2 and 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Devgan et al. (Aust. J. Chem., 1968, 21, 3001-3003) alone or in view of Patra et al. (Journal of Natural Products, Vol. 44, No. 6, November-December 1981, pages 668 and 669) and further in view of March (Advanced Organic Chemistry: Reactions, Mechanisms, and Structure, third

Art Unit: 1621

edition, 1985, pp. 691-700 and 1093-1096) and Ma (US 3,757,490), for the reasons given in the previous office action, mailed January 25, 2006.

### ***Response to Arguments***

5. Applicant's arguments filed May 30, 2006 have been fully considered but they are not persuasive. The Applicants argue that the Examiner makes the assumption that the use of alpha, beta or gamma asarone alone is equivalent to the use of crude calamus oil and that given the possibility of side reactions when calamus oil which contains alpha, beta or gamma asarone is used, it is not obvious from a disclosure showing use of one of these that a composition which contains all of these types of asarone can be used for preparation of highly pure 1-Propyl-2,4,5-trimethoxybenzene. This argument is not persuasive. The Examiner believes that regardless of whether side reactions occur or not if one hydrogenates alpha-asarone alone, gamma-asarone alone, as taught by Devgan et al., or beta-asarone alone, as taught by Patra et al, or in combination as claimed, the result would be the same obtainment of the dihydro derivative. The Examiner believes that there is nothing in the calamus oil that would hinder each of the asarones present therein from undergoing hydrogenation in the manner taught by Devgan et al. When applying the process of the Devgan et al. to the instant calamus oil the skilled artisan may need to adjust the hydrogenation conditions, i.e. the amount of hydrogenating substance or the time of hydrogenation, to account for the additional asarones present in the starting material. However, any such adjustments would be obvious and are within the level of ordinary skill in the art. The Examiner believes that a prima facie case of obviousness exists because regardless of whether there is one asarone or a mixture of asarones in the starting material the skilled artisan is taught by Devgan et al. that one can obtain the dihydro-derivative of an asarone by conducting certain steps. The ability to

Art Unit: 1621

hydrogenate beta and gamma asarone to obtain the dihydro derivative is taught in the prior art (see Devgan et al. and Patra et al.). Also the steps utilized by the Applicants to obtain the dihydro derivative, i.e., 1-propyl-2,4,5-trimethoxybenzene, are essentially the same as those taught by Devgan et al. other than the difference pointed out in the above rejection. Thus, when viewed as a whole the Examiner believes that the prior art teaches or at least fairly suggests the instant claimed invention.

### ***Conclusion***

6. Applicant's amendment (deletion of the structural formula) necessitated the new ground(s) of rejection (112, second paragraph) presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rosalynd Keys whose telephone number is 571-272-0639. The examiner can normally be reached on M-W & F 5:30-8:30 am & 1-5 pm; TH 5:30 am-5:30 pm.

Art Unit: 1621

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman Page can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Rosalynd Keys  
Primary Examiner  
Art Unit 1621

August 21, 2006